Preliminary Amendment

Amendments to the Specification

Please amend the following paragraphs as indicated:

Paragraph 17:

U.S. Patent No. 5,407,464~~5,407,564~~ (Kaliski) is illustrative. Kaliski discloses a range of high mass density, single-element carbides selected from tungsten, thallium, niobium, and vanadium in sizes ranging between 10 and 100 microns with a requirement of high theoretical density. As Kaliski explains, high theoretical density, nonporous materials are needed. These materials showed impressive results in producing fine and regular product material in small quantities under controlled laboratory conditions. Duplication of his example showed his invention to cause contamination of the milled product, as longer-term and higher-volume production attempts failed due to lack of mechanical toughness that caused metallic and other contamination of product material. High density ceramics without metal binders, such as tungsten carbide combined with tungsten di-carbide, also are disclosed by Kaliski as a means to obtain high milling efficiency but with contamination of product material from the grinding media. Kaliski specifically recommends choosing among his claimed materials to select those whose contaminants provide the most good, or at least do the least damage, to the milled product. These materials changed the nature of but did not resolve the product material contaminant issue, and did not solve the mechanical toughness problem. Rather, these materials tended to fail by degradation into hard, fine and irregular shards that acted as abrasives in the media mill, contaminating the product and on one occasion seriously damaging the mill itself.

Paragraph 25:

According to an embodiment of the invention, grinding media include a multi-carbide material which includes ~~consisting essentially of~~ carbon and at least two different carbide-forming elements wherein the multi-carbide material is formed into shaped grinding media ranging in size from 0.5 micron to 100 mm in diameter.

Paragraph 26:

According to an embodiment of the invention, a method for making grinding media includes the step of forming the media from a multi-carbide material which includes~~consisting~~

~~essentially of~~ carbon and at least two different carbide-forming elements wherein the multi-carbide material is formed as grinding media for use in a media mill.

Paragraph 27:

According to an embodiment of the invention, a method for making spheres for use in cladding materials includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and at least two different carbide-forming elements.

Paragraph 28:

According to an embodiment of the invention, a method for making spheres for use in surfacing material includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and at least two different carbide-forming elements.

Paragraph 29:

According to an embodiment of the invention, a method for making spheres for use in hard body materials includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and at least two different carbide-forming elements.

Paragraph 30:

According to an embodiment of the invention, a method for making grinding media includes the step of forming the media from a multi-carbide material which includes~~consisting essentially of~~ carbon and one element selected from the group consisting of chromium, hafnium, niobium, tantalum, titanium, tungsten, molybdenum, vanadium, and zirconium, along with the elemental metal of the carbide.

Paragraph 31:

According to an embodiment of the invention, a method for making spheres for use in cladding material includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and one element selected from the group consisting of chromium, hafnium, molybdenum, niobium, rhenium, tantalum, thallium, titanium, tungsten, vanadium, and zirconium, along with the elemental metal of the carbide.

Paragraph 32:

According to an embodiment of the invention, a method for making spheres for use in surfacing material includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and one element selected from the group consisting of chromium, hafnium, molybdenum, niobium, rhenium, tantalum, thallium, titanium, tungsten, vanadium, and zirconium, along with the elemental metal of the carbide.

Paragraph 33:

According to an embodiment of the invention, a method for making spheres for use in hard body material includes the step of forming the spheres from a multi-carbide material which includes~~consisting essentially of~~ carbon and one element selected from the group consisting of chromium, hafnium, molybdenum, niobium, rhenium, tantalum, thallium, titanium, tungsten, vanadium, and zirconium, along with the elemental metal of the carbide.

Paragraph 34:

According to an embodiment of the invention, a method for milling a product in a media mill includes the step of using media consisting essentially of a multi-carbide material which includes~~consists essentially of~~ carbon and at least two carbide-forming elements wherein the multi-carbide is formed as media for use in a media mill.

Paragraph 35:

According to an embodiment of the invention, a method for milling a product in a media mill includes the step of using carbide media which includes~~consisting essentially of~~ carbon and one element selected from the group consisting of chromium, hafnium, molybdenum, niobium, rhenium, tantalum, thallium, titanium, tungsten, vanadium, and zirconium, along with the elemental metal of the carbide.